# Risk Assessment & Mitigation Plan

## Introduction

This document identifies potential risks in the development of the Movie Recommendation App and outlines mitigation strategies to minimize their impact. Addressing these risks proactively will help ensure the successful completion of the project.

## Risk Assessment Table

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| Risk Category | Description | Impact Level (High/Medium/Low) | Mitigation Strategy |
| Technical Risks | API downtime or unavailability | High | Implement caching for frequently accessed data, use fallback responses. |
|  | Compatibility issues across different devices and browsers | Medium | Conduct thorough cross-browser and device testing. |
|  | Performance issues due to large API requests | High | Implement pagination, lazy loading, and optimize API calls. |
| Project Management Risks | Delays in task completion due to unforeseen issues | High | Use Agile methodology, hold weekly progress meetings, and adjust deadlines accordingly. |
|  | Miscommunication among team members | Medium | Utilize Trello/Jira for task tracking and Slack/Discord for communication. |
| Security Risks | API key exposure or unauthorized access | High | Use environment variables, secure API keys, and implement authentication where necessary. |
|  | Data privacy concerns regarding user preferences | Medium | Implement GDPR-compliant data handling policies. |
| User Experience Risks | Poor UI/UX leading to lower engagement | Medium | Conduct usability testing and gather feedback from users. |
|  | Accessibility issues preventing some users from using the app | Low | Follow WCAG accessibility guidelines and test with assistive technologies. |

## Risk Monitoring & Review

- Regular team meetings to reassess risks and update mitigation strategies.  
- Continuous monitoring of API performance and system logs.  
- User feedback collection to identify and address usability concerns.